(12) UK Patent Application (19) GB (11) 2 345 584 (13) A

(43) Date of A Publication 12.07.2000

(21) Application No 9823999.9

(22) Date of Filing 04.11.1998

(51) INT CL[7]
H02K 53/00

(52) UK CL (Edition R)
H2A ARQQ AR120 AR121 AR806 AR818 AR822

(56) Documents Cited
EP 0422221 A1 EP 0084761 A1 EP 0067755 A1
WO 94/08385 A1 US 5686818 A

(58) Field of Search
INT CL[6] H02K 53/00
Online: WPI, JAPIO, EPODOC

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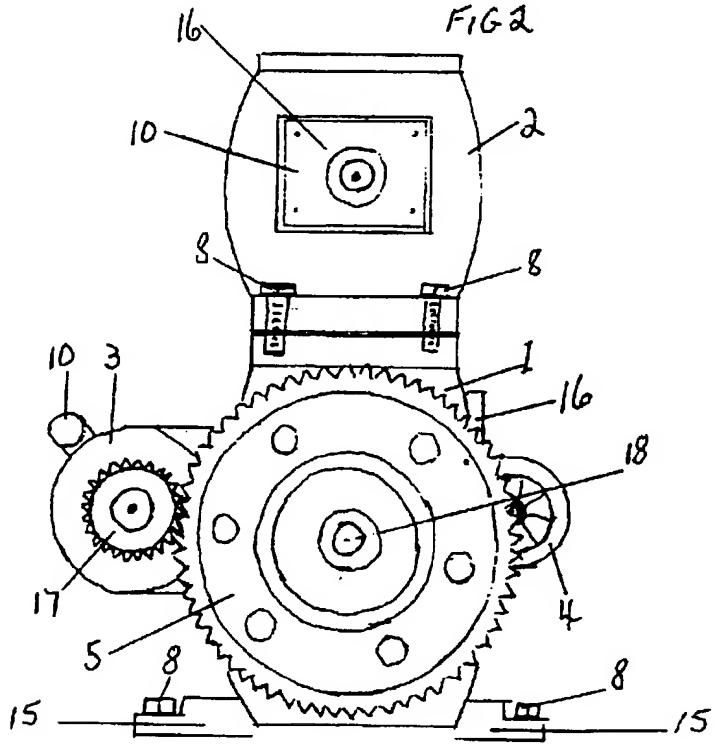
(54) Abstract Title
Self-powered electric engine

(57) An electric engine which provides more than sufficient energy for its own requirement comprises a motor 1 connected to a generator 2 bolted on top. The engine is started by a 12 volt battery (11, see figure 6) which powers a starter motor 3 connected to flywheel 5. During operation, the battery is recharged by alternator 4 mounted on the side of the engine. An engine management control (14, see figure 5) controls the amount of electricity supplied to the motor 1.

FIG 2



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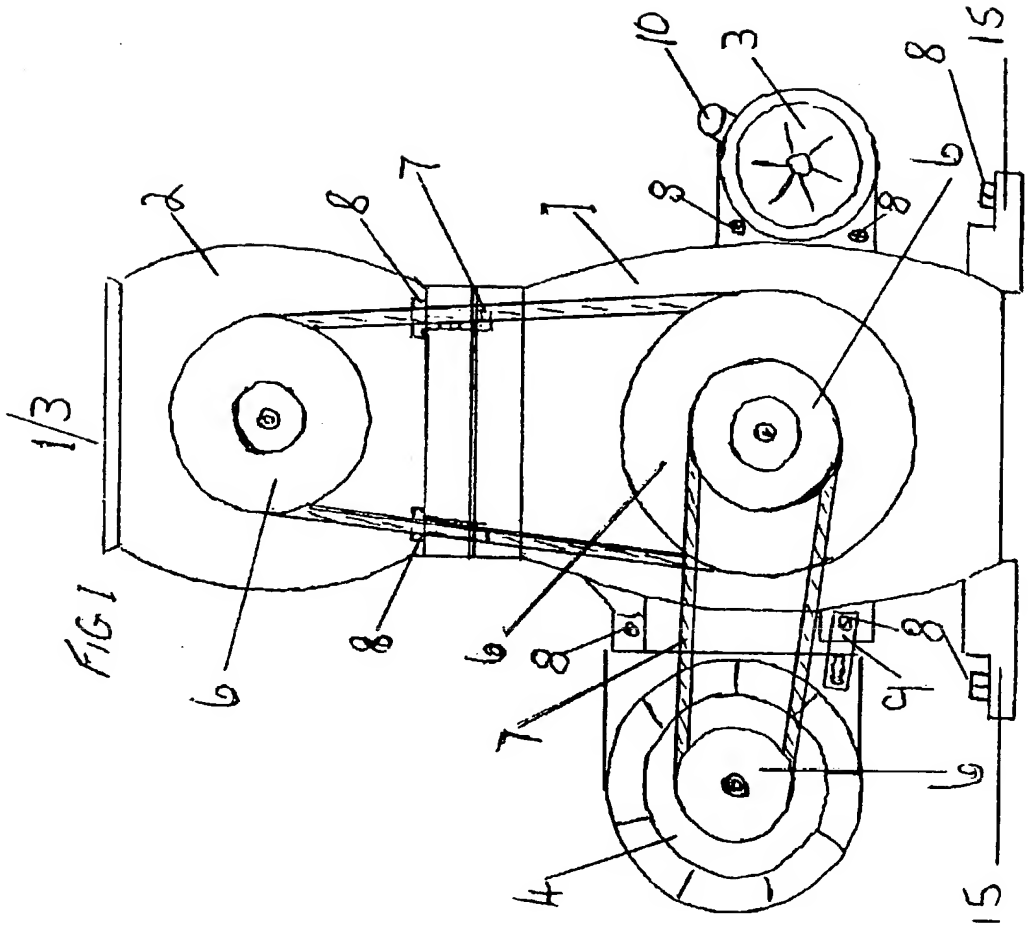

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FIG 1

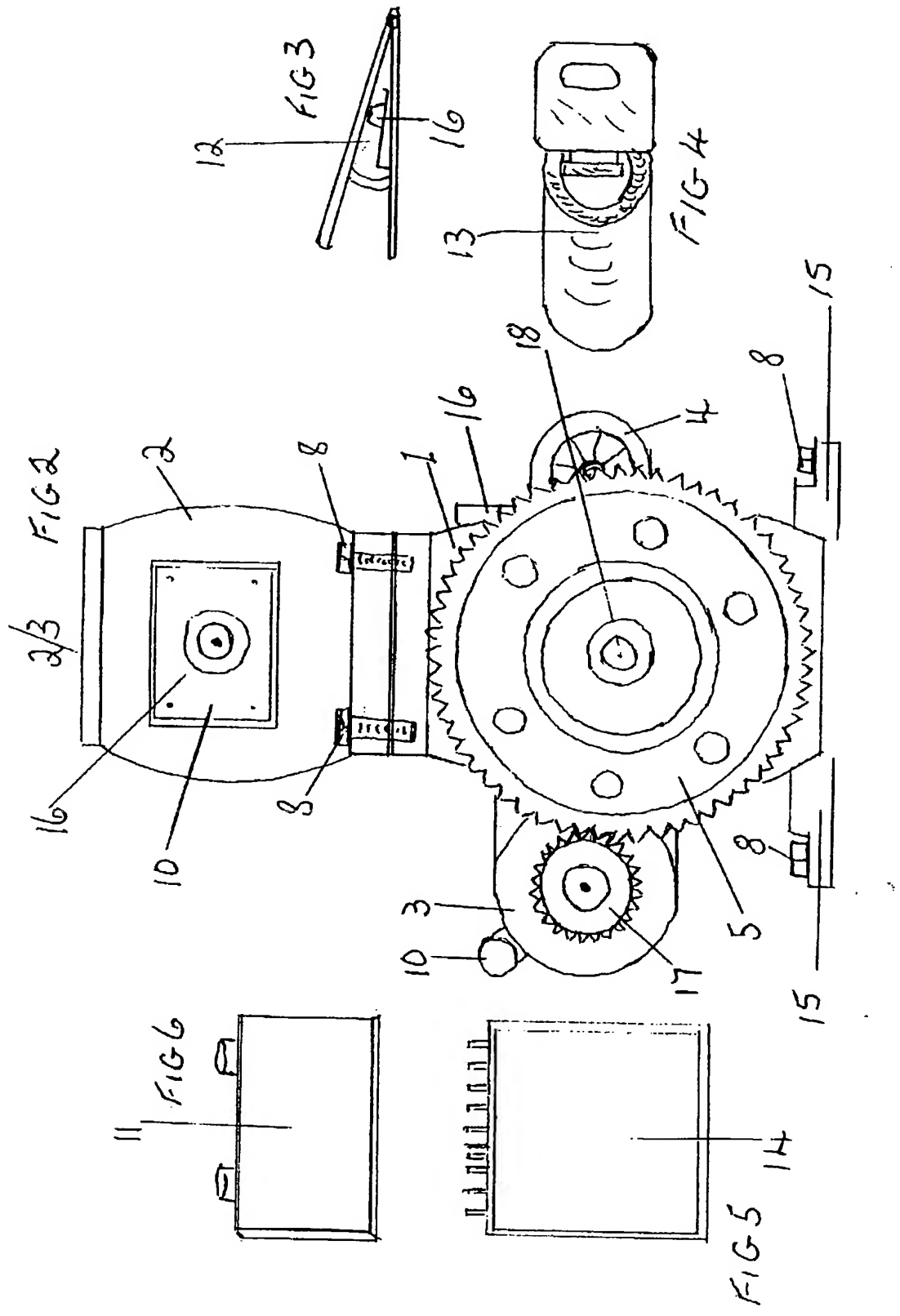
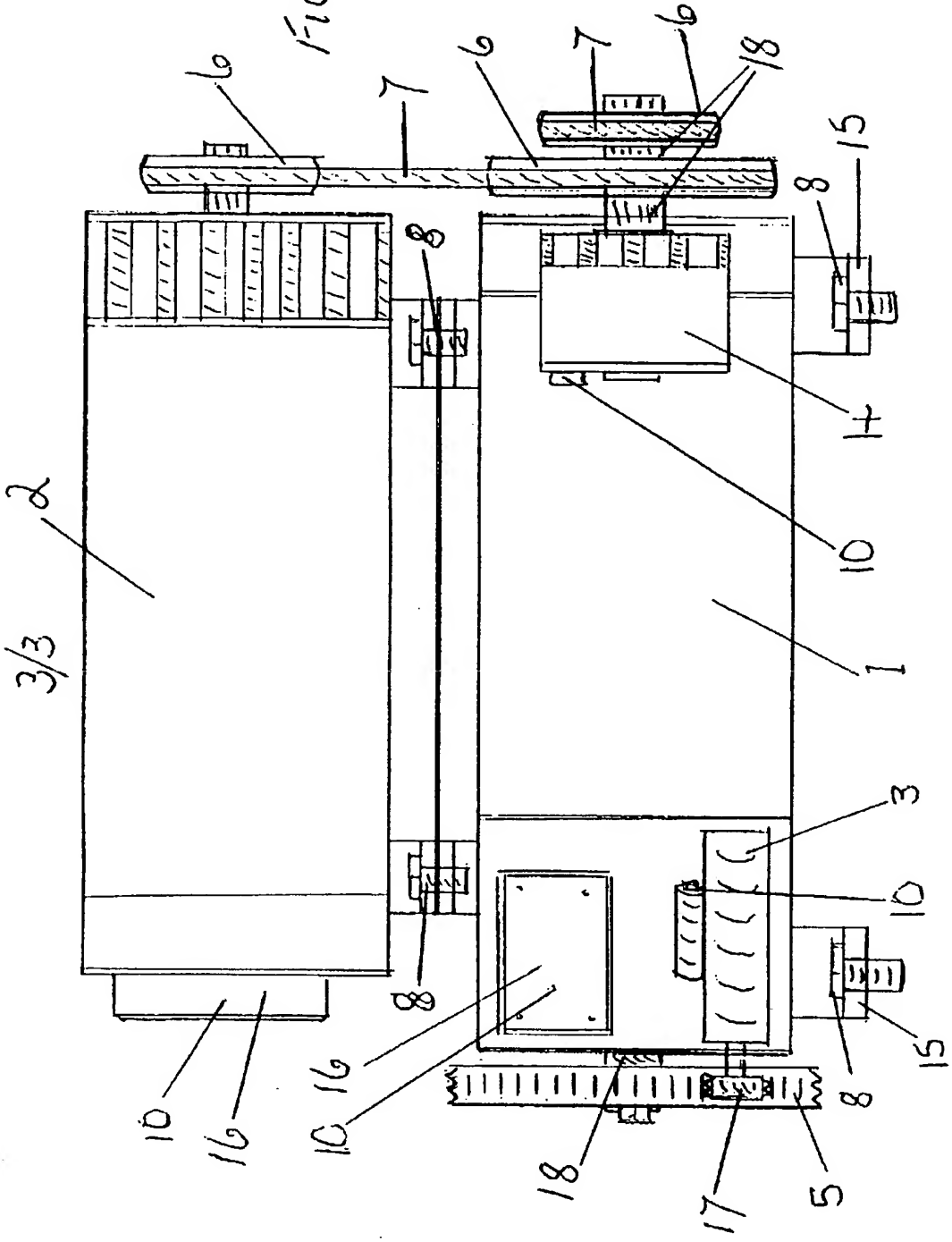


FIG 3
12
16
FIG 4
13
FIG 2
2/3
2
8
1
16
18
4
8
15
16
10
8
3
10
5
17
8
15
FIG 6
11
FIG 5
14

FIG 7



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ELECTRIC ENGINE

The invention relates to an electric engine on the type that is a self generating engine that once started will generate more than sufficient electricity to run the engine for its own requirement.

The invention of the electric engine is different from the point that electric vehicles rely on an electric motor run from a battery pack which as the disadvantage of a limited mileage before recharging.

The object of this invention is to provide continuous electricity for the engine therefore omitting any recharging other than that of the alternator recharging the 12 volt battery as the engine is in operation.

Accordingly this invention provides an electric engine which consists of an electric motor which is of variable speed an electric generator which as a variable voltage control and a starter motor to start the engine an alternator to recharge a 12 volt battery a drive by wire foot control and an electronic ignition switch.

The invention relates to the motor which is a high-speed three-phase alternating current motor and the generator which is of high-speed three-phase alternating current working at variable speeds compatible with the motor all the different functions are monitored by way of electronic sensors connected to and managed by the management control system.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:-

Figure 1 shows in perspective the front elevation of the motor with the generator bolted in position on top the starter motor bolted in position on one side and the alternator bolted in position on the opposite side.

Figure 2 illustrates the starter motor and the flywheel.

Figure 3 shows the drive-by-wire foot control.

Figure 4 shows the electronic ignition switch.

Figure 5 shows the engine management control system.

Figure 6 shows the 12 volt battery.

Figure 7 illustrates the pulley assembly at the front of the engine and the flywheel assembly at the rear of the engine.

Referring to the drawing figure 1 the front view the electric engine will be constructed with the motor 1 then the generator 2 on the top and bolted 8 together at the front of each will be fixed ribbed pulleys 6 figure 7 with ribbed pulley belts 7 will serve the alternator 4 Figure 7 generator 2 figure 7 and the motor 1 Figure 7.

The alternator 4 figure 1 will be mounted on the side of the engine 1 with an adjustable fixing 9 for belt tensioning 7.

Referring to the drawing figure 2 the rear view on the rear of the engine 1 will be fitted a flywheel 5 fitted to this on the side of the engine 1 will be a starter motor 3 of the pre-engaged type 17.

The starter motor 3 is energized by the starter ignition switch 13 figure 4 from a 12 volt battery 11 figure 6 once the starter motor 3 figure 2 as spun the flywheel 5 to start the engine 1 and 2 the engine management control 14 figure 5 comes into play and controls the amount of electric from the generator 2 to run the electric engine.

The speed of the engine is controlled by a drive by wire foot control 12 figure 3 linked via electronic sensors 16 to the engine management control system 14 figure 5.

The electronic engine as electrical connections on the motor 1 figure 7 10 on the generator 2 10 on the starter motor 3 10 and on the alternator 4 10 the engine is bolted down by its feet 15 for stability.

Referring to the drawing figure 7 the side view shows the motor 1 with a double ended drive shaft 18.

CLAIMS

1. The electric engine consists of an electric motor which is of variable speed an electric generator which as a variable voltage control and a starter motor to start the engine an alternator to recharge a 12 volt battery for the starter motor and an engine management control to control all the electronic sensors on the electric engine.

2. An electric engine as claimed in claim 1 consisting of an electric motor and an electric alternator bolted together one on top of the other.

3. An electric engine as claimed in claim 1 and claim 2 is of variable speed and is of variable voltage.

4. An electric engine as claimed in claim 3 is a self generating engine controlled by electronic sensors governed by an engine management control system.

5. An electric engine as claimed in any preceding claim including a starter motor of the pre-engaged type to start the engine via a fly-wheel.

6. An electric engine as claimed in any preceding claim as an alternator to recharge a 12 volt battery as the engine is running.

7. An electric engine as claimed in any preceding claim including ribbed pulley wheels with ribbed pulley belts connected to the motor the generator and the alternator the speed of the engine is controlled by a drive by wire foot control and is started by an electronic ignition switch.

8. An electric engine substantially as here in described and illustrated in the accompanying drawings.

Amendments to the claims have been filed as follows

1 The electric engine consists of an electric motor which is of variable speed an electric generator which has a variable voltage control and a starter motor to start the engine an alternator to recharge a 12 volt battery for the supply of energy for the starter motor and an engine management control to control all the electronic sensors on the electric engine a drive by wire foot control to control the speed of the engine and an electronic ignition switch to turn the engine "on and off" a fly-wheel fixed to the rear of the engine via the starter motor and ribbed pulley wheels with ribbed pulley belts connected to the motor the generator and the alternator.

2 An electric engine as claimed in claim 1 consisting of an electric motor and an electric generator bolted together one on top of the other.

3 An electric engine as claimed in claim 1 and claim 2 is of variable speed and is of variable voltage.

4 An electric engine as claimed in claim 3 is an engine controlled by electric sensors governed by an engine management control system.

5 An electric engine as claimed in any preceding claim including a starter motor of the pre-engaged type to start the engine via a fly-wheel.

6 An electric engine as claimed in any preceding claim wherein the alternator recharges the 12 volt battery as the engine is running.

7 An electric engine as claimed in any preceding claim including ribbed pulley wheels with ribbed pulley belts connected to the motor the generator and the alternator the speed of the engine is controlled by a drive by wire foot control and is started and stopped by an electronic ignition switch connected via the engine management control system.

8 An electronic engine is substantially as here described and illustrated in the accompanying drawings.

The Patent Office

INVESTOR IN PEOPLE

Application No:	GB 9823999.9	**Examiner:**	Peter Emerson
Claims searched:	1-8	**Date of search:**	1 July 1999

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.Q):

Int Cl (Ed.6): H02K 53/00

Other: Online: WPI, JAPIO, EPODOC

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	EP 0422221 A1	(AKIBA) - figure 1	1, 3, 6
A	EP 0084761 A1	(MULARONI)	
A	EP 0067755 A1	(JAMISON)	
A	WO 94/08385 A1	(BARSAMIAN)	
X	US 5686818 A	(SCADUTO) - whole doc relevant.	1, 3, 4, 6

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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Document Listing

Document	Image pages	Text pages	Error pages
GB 2345584 A	10	5	0
Total	10	5	0

DERWENT-ACC-NO: 2000-433608

DERWENT-WEEK: 200102

TITLE: A self-powered electric engine for driving a vehicle includes a variable speed electric motor connected to a **generator, a starter** motor, an **alternator** to continuously charge a battery and an engine management system

INVENTOR: CROOK, J B

PRIORITY-DATA: 1998GB-0023999 (November 4, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
GB 2345584 A	July 12, 2000	N/A	010	H02K 053/00
GB 2345584 B	December 27, 2000	N/A	000	H02K 053/00

INT-CL (IPC): H02K053/00

ABSTRACTED-PUB-NO: GB 2345584A

BASIC-ABSTRACT:

NOVELTY - A variable speed electric motor (1) has a **pulley** (6) and belt connection (7) to a **generator** (2) bolted (8) on top. The engine is started by a battery that powers a **starter** motor (3). During operation, the battery is recharged by a belt-driven **alternator** (4) mounted on the side of the engine.
An engine management control system uses sensors to control the amount of electricity supplied to the motor and includes a

drive-by-wire foot control and
an electric ignition switch.

USE - The self-powered electric engine is used for driving a vehicle.

ADVANTAGE - Once started the engine is self-powered, charging the battery as it
operates. A vehicle does not have a limited range of operation.

DESCRIPTION OF DRAWING(S) - The figure shows a front elevation of a
self-powered electric engine.

Variable speed electric motor 1

Generator 2

Starter motor 3

Alternator 4

Pulley 6

Belt 7

Bolt 8

ABSTRACTED-PUB-NO: GB 2345584B

EQUIVALENT-ABSTRACTS:

NOVELTY - A variable speed electric motor (1) has a **pulley** (6) and belt
connection (7) to a **generator** (2) bolted (8) on top. The engine is started by
a battery that powers a **starter** motor (3). During operation, the battery is
recharged by a belt-driven **alternator** (4) mounted on the side of the engine.
An engine management control system uses sensors to control the amount of
electricity supplied to the motor and includes a drive-by-wire foot control and
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USE - The self-powered electric engine is used for driving

a vehicle.

ADVANTAGE - Once started the engine is self-powered, charging the battery as it operates. A vehicle does not have a limited range of operation.

DESCRIPTION OF DRAWING(S) - The figure shows a front elevation of a self-powered electric engine.

Variable speed electric motor 1

Generator 2

Starter motor 3

Alternator 4

Pulley 6

Belt 7

Bolt 8

---------- KWIC ---------

Basic Abstract Text - ABTX (1):
NOVELTY - A variable speed electric motor (1) has a **pulley** (6) and belt connection (7) to a **generator** (2) bolted (8) on top. The engine is started by a battery that powers a **starter** motor (3). During operation, the battery is recharged by a belt-driven **alternator** (4) mounted on the side of the engine.
An engine management control system uses sensors to control the amount of electricity supplied to the motor and includes a drive-by-wire foot control and an electric ignition switch.

Basic Abstract Text - ABTX (6):
Generator 2

Basic Abstract Text - ABTX (7):
Starter motor 3

Basic Abstract Text - ABTX (8):
Alternator 4

Basic Abstract Text - ABTX (9):
Pulley 6

Title - TIX (1):
A self-powered electric engine for driving a vehicle includes a variable
speed electric motor connected to a **generator, a starter** motor, an **alternator**
to continuously charge a battery and an engine management system

Equivalent Abstract Text - ABEQ (1):
NOVELTY - A variable speed electric motor (1) has a **pulley** (6) and belt
connection (7) to a **generator** (2) bolted (8) on top. The engine is started by
a battery that powers a **starter** motor (3). During operation, the battery is
recharged by a belt-driven **alternator** (4) mounted on the side of the engine.
An engine management control system uses sensors to control the amount of
electricity supplied to the motor and includes a drive-by-wire foot control and
an electric ignition switch.

Equivalent Abstract Text - ABEQ (6):
Generator 2

Equivalent Abstract Text - ABEQ (7):
Starter motor 3

Equivalent Abstract Text - ABEQ (8):

Alternator 4

Equivalent Abstract Text - ABEQ (9):
Pulley 6

Standard Title Terms - TTX (1):
SELF POWER ELECTRIC ENGINE DRIVE VEHICLE VARIABLE SPEED ELECTRIC MOTOR
CONNECT **GENERATOR** START MOTOR **ALTERNATOR** CONTINUOUS CHARGE BATTERY ENGINE
MANAGEMENT SYSTEM